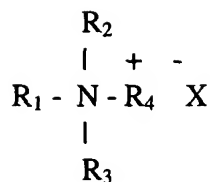


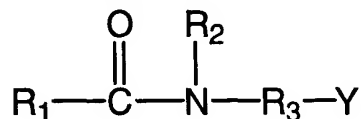
What is claimed is:

1. A method of completing an interval of an open hole wellbore penetrating a subterranean formation comprising the steps of:
  - a. drilling the wellbore into the formation with a drill string and an oil-based mud,
  - b. pulling out the drill string,
  - c. running a sand control string comprising one or more screens and one or more alternate path shunt tubes into the wellbore containing the oil-based mud,
  - d. setting a packer at or near the location at which the wellbore penetrates the formation,
  - e. gravel packing with an aqueous viscous viscoelastic surfactant based carrier fluid, said viscoelastic surfactant present in an amount effective to provide viscosity sufficient to carry the gravel, said carrier fluid being insensitive to the oil-based mud for a time sufficient to place the gravel and said carrier fluid being capable of breaking in the presence of produced fluid, and
  - f. producing fluid from the wellbore.
2. The method of claim 1 wherein the wellbore is horizontal or highly deviated.
3. The method of claim 1 wherein the oil-based mud is an invert emulsion oil-based mud.
4. The method of claim 1 wherein the viscous viscoelastic surfactant based carrier fluid comprises an effective amount of a quaternary ammonium salt of the amine corresponding to the formula



wherein R<sub>1</sub> is at least about a C<sub>16</sub> aliphatic group which may be branched or straight chained and which may be saturated or unsaturated, R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> are each independently, a C<sub>1</sub> to about C<sub>6</sub> aliphatic group which can be branched or straight chained, saturated or unsaturated and which may be substituted with a group that renders the R<sub>2</sub> or R<sub>3</sub> group more hydrophilic, none of R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> or R<sub>4</sub> is hydrogen, and the R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> groups may be formed into a heterocyclic 5- or 6-member ring structure which includes the nitrogen atom of the amine, and X<sup>-</sup> is an inorganic anion.

5. The method of claim 4 wherein said viscous viscoelastic surfactant based carrier fluid comprises erucyl bis(2-hydroxyethyl) methyl ammonium chloride.
6. The method of claim 1 wherein the viscoelastic surfactant gel comprises

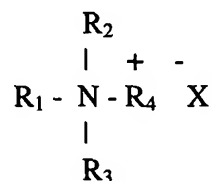


in which R<sub>1</sub> is a hydrocarbyl group that may be branched or straight chained, aromatic, aliphatic or olefinic and has from about 14 to about 26 carbon atoms and may contain an amine; R<sub>2</sub> is hydrogen or an alkyl group having from 1 to about 4 carbon atoms; R<sub>3</sub> is a hydrocarbyl group having from 1 to about 5 carbon atoms; and Y is an electron withdrawing group.

7. The method of claim 6 wherein the viscoelastic surfactant gel comprises a betaine.
8. The method of claim 7 wherein the viscoelastic surfactant gel comprises BET-E-40.
9. The method of claim 1 wherein the viscoelastic surfactant gel comprises CaCl<sub>2</sub>.

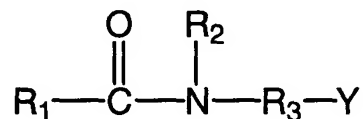
10. The method of claim 1, wherein the step of gravel packing is performed above the formation fracture pressure.
11. A method of completing an interval of an open hole wellbore penetrating a subterranean formation comprising the steps of:
  - a. drilling the wellbore into the formation with a drill string and an oil-based mud,
  - b. pulling out the drill string,
  - c. running a sand control string comprising one or more screens, one or more alternate path shunt tubes, and a shroud into the wellbore containing the oil-based mud,
  - d. setting a packer at or near the location at which the wellbore penetrates the formation,
  - e. displacing at least a portion of the oil-based mud with a non-damaging aqueous fluid insensitive to oil-based mud, up to the packer,
  - f. gravel packing with an aqueous viscous viscoelastic surfactant based carrier fluid, said viscoelastic surfactant present in an amount effective to provide viscosity sufficient to carry the gravel, said carrier fluid being insensitive to the at least partially displaced oil-based mud for a time sufficient to place the gravel and said carrier fluid being capable of breaking in the presence of produced fluid, and
  - g. producing fluid from the wellbore.
12. The method of claim 11 wherein the wellbore is horizontal or highly deviated.
13. The method of claim 11 wherein the oil-based mud is an invert emulsion oil-based mud.

14. The method of claim 11 wherein the viscous viscoelastic surfactant based carrier fluid comprises an effective amount of a quaternary ammonium salt of the amine corresponding to the formula



wherein R<sub>1</sub> is at least about a C<sub>16</sub> aliphatic group which may be branched or straight chained and which may be saturated or unsaturated, R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> are each independently, a C<sub>1</sub> to about C<sub>6</sub> aliphatic group which can be branched or straight chained, saturated or unsaturated and which may be substituted with a group that renders the R<sub>2</sub> or R<sub>3</sub> group more hydrophilic, none of R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub> or R<sub>4</sub> is hydrogen, and the R<sub>2</sub>, R<sub>3</sub> and R<sub>4</sub> groups may be formed into a heterocyclic 5- or 6-member ring structure which includes the nitrogen atom of the amine, and X<sup>-</sup> is an inorganic anion.

15. The method of claim 14 wherein said viscous viscoelastic surfactant based carrier fluid comprises erucyl bis(2-hydroxyethyl) methyl ammonium chloride.
16. The method of claim 11 wherein the viscoelastic surfactant gel comprises



in which R<sub>1</sub> is a hydrocarbyl group that may be branched or straight chained, aromatic, aliphatic or olefinic and has from about 14 to about 26 carbon atoms and may contain an amine; R<sub>2</sub> is hydrogen or an alkyl group having from 1 to about 4 carbon atoms; R<sub>3</sub> is a hydrocarbyl group having from 1 to about 5 carbon atoms; and Y is an electron withdrawing group.

17. The method of claim 16 wherein the viscoelastic surfactant gel comprises BET-E-40.

18. The method of claim 11 wherein the viscoelastic surfactant gel comprises  $\text{CaCl}_2$ .
19. The method of claim 11, wherein the step of gravel packing is performed above the formation fracture pressure.
20. The method of claim 11 wherein said non-damaging aqueous fluid insensitive to oil-based mud is selected from the group consisting of an aqueous hydroxyethyl cellulose solution, an aqueous xanthan solution, and an aqueous clarified xanthan solution.
21. The method of claim 11, wherein after the step of displacing at least a portion of the oil-based mud with a non-damaging aqueous fluid insensitive to oil-based mud up to the packer, a non-damaging aqueous fluid insensitive to oil-based mud is used as a pre-pad.
22. A method of completing an interval of an open hole wellbore penetrating a subterranean formation comprising the steps of:
  - a. drilling the wellbore into the formation with a drill string and an oil-based mud,
  - b. pulling out the drill string,
  - c. running a sand control string comprising one or more screens, one or more alternate path shunt tubes, and a shroud into the wellbore containing the oil-based mud,
  - d. setting a packer at or near the location at which the wellbore penetrates the formation,
  - e. injecting a non-damaging aqueous fluid insensitive to oil-based mud as a pre-pad,
  - f. gravel packing with an aqueous viscous viscoelastic surfactant based carrier fluid, said viscoelastic surfactant present in an amount effective to provide viscosity sufficient to carry the gravel, said carrier fluid being insensitive to the at least

partially displaced oil-based mud for a time sufficient to place the gravel and said carrier fluid being capable of breaking in the presence of produced fluid, and

- g. producing fluid from the wellbore.
23. The method of claim 22 wherein said non-damaging aqueous fluid insensitive to oil-based mud is selected from the group consisting of an aqueous hydroxyethyl cellulose solution, an aqueous xanthan solution, and an aqueous clarified xanthan solution